

Apply [⟨acronymref|definition|MR⟩](#),

Aplique [⟨acronymref|definition|MR⟩](#),

$$\text{pc}(T(1)) = \text{pc} \begin{pmatrix} 2 \\ 1 \\ 3 \end{pmatrix} = \text{pc} \left(1 \begin{pmatrix} 1 \\ 0 \\ 0 \end{pmatrix} + (-2) \begin{pmatrix} 1 \\ 1 \\ 0 \end{pmatrix} + 3 \begin{pmatrix} 1 \\ 1 \\ 1 \end{pmatrix} \right) = \begin{pmatrix} 1 \\ -2 \\ 3 \end{pmatrix}$$

$$\text{pc}(T(x)) = \text{pc} \begin{pmatrix} -3 \\ 1 \\ 0 \end{pmatrix} = \text{pc} \left(-4 \begin{pmatrix} 1 \\ 0 \\ 0 \end{pmatrix} + 1 \begin{pmatrix} 1 \\ 1 \\ 0 \end{pmatrix} + 0 \begin{pmatrix} 1 \\ 1 \\ 1 \end{pmatrix} \right) = \begin{pmatrix} -4 \\ 1 \\ 0 \end{pmatrix}$$

$$\text{pc}(T(x^2)) = \text{pc} \begin{pmatrix} 4 \\ -1 \\ 2 \end{pmatrix} = \text{pc} \left(5 \begin{pmatrix} 1 \\ 0 \\ 0 \end{pmatrix} + (-3) \begin{pmatrix} 1 \\ 1 \\ 0 \end{pmatrix} + 2 \begin{pmatrix} 1 \\ 1 \\ 1 \end{pmatrix} \right) = \begin{pmatrix} 5 \\ -3 \\ 2 \end{pmatrix}$$

$$\text{pc}(T(x^3)) = \text{pc} \begin{pmatrix} -2 \\ 1 \\ -3 \end{pmatrix} = \text{pc} \left(-3 \begin{pmatrix} 1 \\ 0 \\ 0 \end{pmatrix} + 4 \begin{pmatrix} 1 \\ 1 \\ 0 \end{pmatrix} + (-3) \begin{pmatrix} 1 \\ 1 \\ 1 \end{pmatrix} \right) = \begin{pmatrix} -3 \\ 4 \\ -3 \end{pmatrix}$$

These four vectors are the columns of the matrix representation,

Estos cuatro vectores son las columnas de la matriz de representacion,

$$M_{B,C}^T = \begin{pmatrix} 1 & -4 & 5 & -3 \\ -2 & 1 & -3 & 4 \\ 3 & 0 & 2 & -3 \end{pmatrix}$$